

Application Serial No. 10/616,548
Date: July 6, 2006
Response to Office Action dated April 6, 2006

Page 5 of 8

REMARKS

In the Office Action dated April 6, 2006, the Examiner rejects claims 1-11 under 35 U.S.C. § 102(e). The Examiner does not take action with respect to claims 12-14. With this Amendment, claim 5 is amended. Claims 15 and 16 are added, and no claims are canceled. After entry of this Amendment, claims 1-16 are pending in the Application. Reconsideration of the Examiner's rejection is respectfully requested.

The Examiner rejects claims 1-4 under 35 U.S.C. § 102(e) as being anticipated by Luk (US 2002/0181231 A1). This rejection is respectfully traversed. It is respectfully submitted that Luk does not teach or suggest the step of determining a nominal illumination angle for the object. A nominal illumination angle is defined as the angle of illumination, measured from a plane normal to the object in the illustrated embodiments, which most effectively illuminates the object under consideration. (See paragraph [0021]). Luk discloses a theatrical lighting system. In Luk, the object to be illuminated is, for example, a screen 98. In contrast to the Examiner's position, Luk merely defines a focal point, or target zone, 346 to organize the intensity and direction for the discrete light beams generated by diodes 322A-322F. (Luk, [0176]). Once the target zone 346 is defined, each of the diodes 322A-322F is positioned in graduated mounting steps 312. (Luk, [00177]). These steps are structured to orient each diode beam of a diode 322A-322F, which is generally centered (Luk, Fig. 2), towards target zone 346. [Luk, [0177]. A nominal illumination angle is not determined for the object. Even if the target zone 346 were an object to be illuminated in Luk, which it is not, like the prior art described in Applicant's specification, the angle at which the target zone 346 is illuminated varies from one end of the target zone 346 to another end of the target zone 346. Further, and as is clear from the description above, Luk does not teach or suggest the step of positioning a light source at an angle complementary to the nominal illumination angle of the target zone 346. Even if the target zone 346 had a nominal illumination angle, which it does not, Luk does not position light sources at a complementary angle. Instead, Luk positions its plural diodes 322A-322F so that the

Application Serial No. 10/616,548
Date: July 6, 2006
Response to Office Action dated April 6, 2006

Page 6 of 8

beams are targeted to the target zone 346 based upon their distance from a defined cone vertex 142 of the cone-shaped diode frame 140 and the inclination of the cone-shaped diode frame 140. Hence, every diode 322A-322F is mounted at a different angle. (See also Luk, [0138], each diode 62A-62H independently positioned at its own graduated step 60 at a preset angle so that each discrete light beam 86 is directed at a focal point, or target zone, 90). It is respectfully submitted that claim 1 and its dependent claims 2-4 are allowable over the prior art of record.

The Examiner rejects claims 5-8 under 35 U.S.C. § 102(e) as being anticipated by Luk. Claim 5 has been amended to correct a punctuation error. As explained above, Luk does not define a nominal illumination angle of the object, such as the screen 98, to be illuminated. Instead, Luk defines a single focal point, such as target zone 346, to which each of a plurality of diodes 322A-322F are individually positioned. Hence, each of the diodes 322A-322F are positioned at multiple angles related to their step position and the cone geometry, not at a single angle complementary to the nominal illumination angle. The invention as defined by each of claim 5 and its dependent claims 6-8 is patentable over the prior art of record.

In addition to the foregoing, it is respectfully submitted that Luk fails to teach or suggest all the features of claim 8. The Examiner states that Luk teaches that the LEDs are mounted to at least two rigid circuit boards, the circuit boards being symmetrically positioned around the object at an angle complementary to the nominal angle. The Examiner cites [0183]. Even if Luk taught a nominal angle, the teachings of Luk cited do no support the Examiner's position. Figure 19 shows a blank 394 is thin and made of flexible, nonconductive material so that it can form a rigid, semi-spherical shaped board 358 such as that shown in Figure 18. Thus, claim 8 is dependent based upon the features therein and based upon dependency from claim 5.

The Examiner rejects claims 9-11 under 35 U.S.C. § 102(e) as being anticipated by Luk. This rejection is respectfully traversed. As the Examiner knows, claim 9 and its dependent claims are written in Jepson form. A claim in Jepson form

Application Serial No. 10/616,548
Date: July 6, 2006
Response to Office Action dated April 6, 2006

Page 7 of 8

includes the device and recited features of the preamble together with the improvement noted in the body of the claim. It is respectfully submitted that claim 9 includes a device for inspecting semiconductor devices having a nontrivial bi-directional reflectance distribution function. The device includes a sensing element, a lens arrangement and a two dimensional light source positioned at an angle complementary to a nominal illumination angle of a semiconductor device. The diode lighting system of Luk is in the field of large scale lighting arts for use in viewing, for example, a stage by an audience. (Luk, [0010] and [0029]). Luk does not teach or suggest inspection of semiconductor surfaces having a nontrivial bi-directional reflectance function and does not in consequence teach or suggest a two dimensional light source positioned at an angle complementary to a nominal illumination angle of a semiconductor device. Luk does not include, and would not use, a sensor. It is respectfully submitted that Luk neither teaches nor suggests the unique combination of features in claim 9 and its dependent claims 10 and 11, so it cannot anticipate or render the invention defined therein obvious.

Applicants note that the Examiner did not consider new claims 12-14 added in response to the Office Action dated August 22, 2005. Claims 12 and 13 depend upon claims 1 and 5, respectively, while claim 14 depends from claim 9. In addition, with this Amendment claims 15 and 16, which depend from claim 1, are added. Examination and allowance of claims 12-16 are respectfully requested.

It is respectfully submitted that this Amendment traverses and overcomes all of the Examiner's objections and rejections to the Application as originally filed. It is further submitted that this Amendment has antecedent basis in the Application as originally filed, including the specification, claims and drawings, and that this Amendment does not add any new subject matter to the Application. Reconsideration of the Application as amended is requested. It is respectfully submitted that this Amendment places the Application in suitable condition for allowance; notice of which is requested.

If the Examiner feels that prosecution of the present application can be

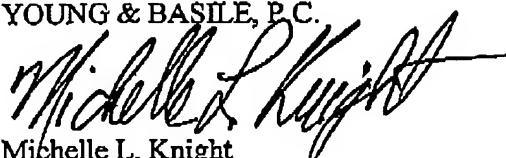
Application Serial No. 10/616,548
Date: July 6, 2006
Response to Office Action dated April 6, 2006

Page 8 of 8

expedited by way of an Examiner's amendment, the Examiner is invited to contact
Applicants' attorney at the telephone number listed below.

Respectfully submitted,

YOUNG & BASILE, P.C.



Michelle L. Knight
Attorney for Applicants
Registration No. 47711
(248) 649-3333

3001 West Big Beaver Rd., Suite 624
Troy, Michigan 48084-3107
Dated: July 6, 2006